schilling
Marking Systems GmbH

Gesamt-Bedienungsanleitung

Entire Instruction Manual

SP100+

Deutsch

English

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Revision / revision

Datum date	Version version	Kapitel chapter	Grund reason	Verantwortlich responsible
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This entire instruction manual has been generated to the best of our knowledge. However, in case you should find any incorrect or unclear passages, please inform us accordingly. We will be grateful for any hints and suggestions. Please contact:

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Tuttlingen, 27.03.2014

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1.0 Anleitung zum Einlegen des Klischeebandes

1. Das Klischeeband besteht aus zwei verschiedenen Bändern:
   - das obere Band (glänzende Seite) Klischeeband
   - das untere Band (Papier) Trägerband

Die glänzende Seite muss nach oben zeigen!

1.

2. Führen Sie das gesamte Band auf dem Boden des SP100+, unter der weißen Rolle und zwischen den beiden grünen Abstandshaltern nach Vorne. Bitte die Abstandshalter auf die Breite der Folie einstellen.

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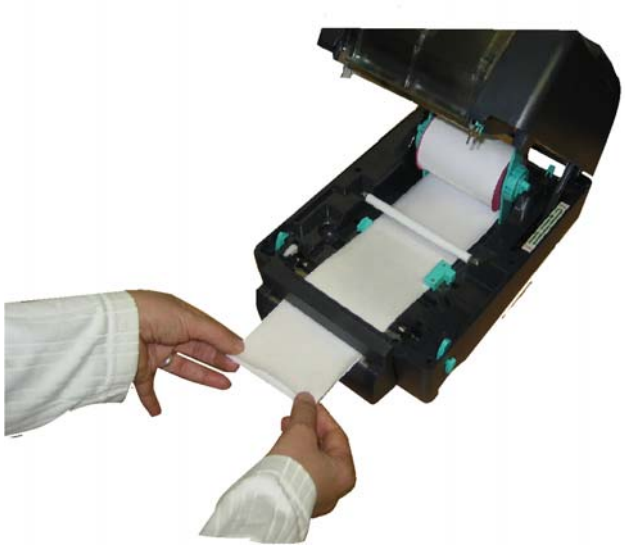

3. Führen Sie das gesamte Band über die Gummiwalze in den Schlitz vor dem Messer ein.

4. Ziehen sie nun das gesamte Band durch den Messerschlitz. Positionieren Sie die beiden grauen Führungen so dass das Material störungsfrei durchlaufen kann.

   Jetzt schließen Sie den Drucker vorsichtig mit beiden Händen. Mit einem leisen Klick rastet er ein. Jetzt können Sie einfach ihre Schablonen drucken.

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How to insert the stamp tape roll correctly

1. The stamp tape roll consists of two different types of tapes:
   - The upper tape (shiny side) is the Stamp Tape
   - The lower tape (paper) is a support during the transportation

When you insert the roll the shiny side has be on top!

2. Feed the complete tape (both parts) along the bottom of the printer, underneath the white rod and between the two green braces. Please adjust the braces in accordance to the width of the tape.

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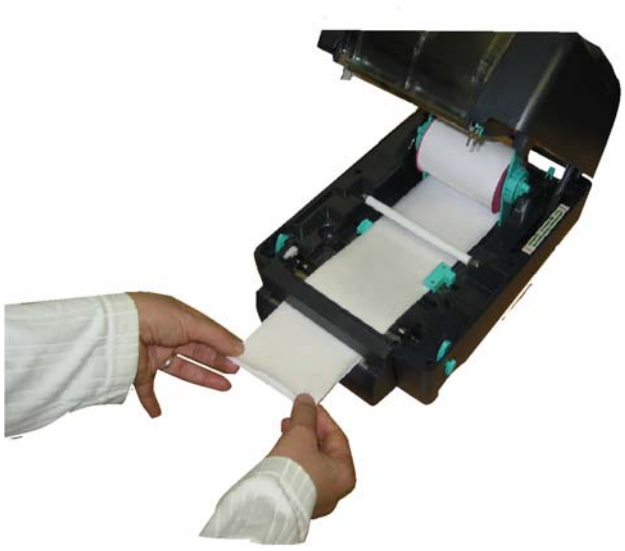

3. Direct the tape (both parts) over the rubber roller and through the slot in front of the cutting knife.

4. Pull the tape through the slot. Make sure that the two grey rails are adjusted correctly to ensure an undisturbed flow.

Close the printer carefully with both hands. Now you can easily print your stencils.

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2.0 Anleitung für die Installation der BarTender Software
Manual for the installation of the BarTender Software

WICHTIG

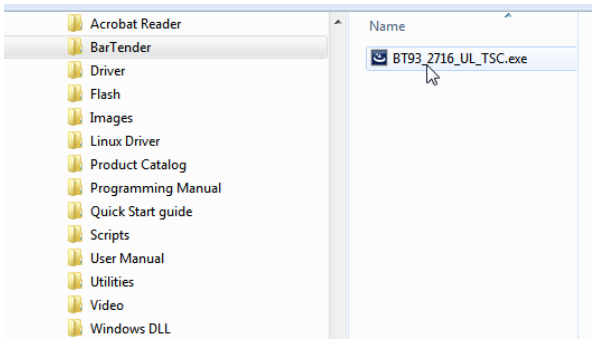
Sollten sie keine Installationsrechte auf ihrem PC haben, müssen sie die Software von ihrem Administrator installieren lassen.

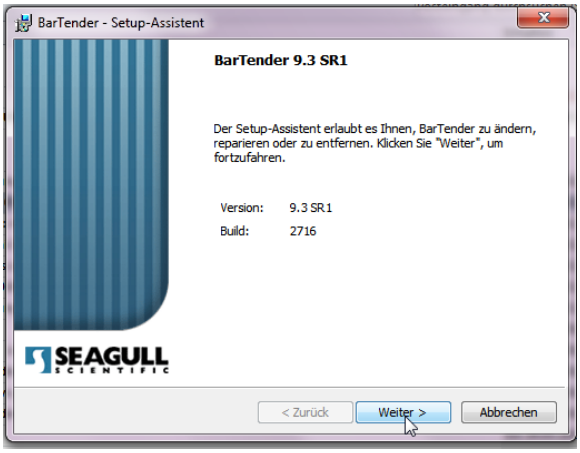
Folgend sie den Bildern zur Installation.

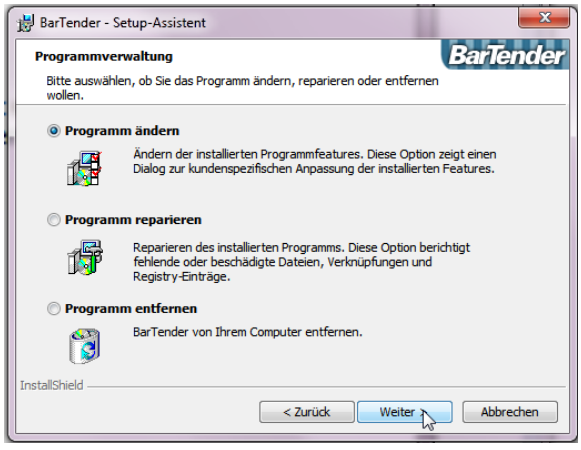
IMPORTANT

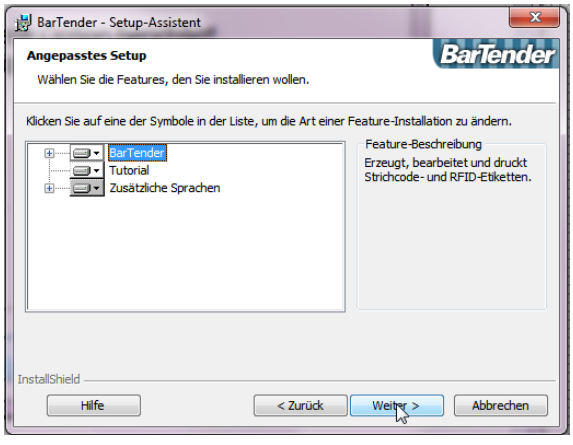
If you do not have installation rights on your PC, you will have to have the installation of this software done by your administrator.

Follow the instruction on the pictures for installation.









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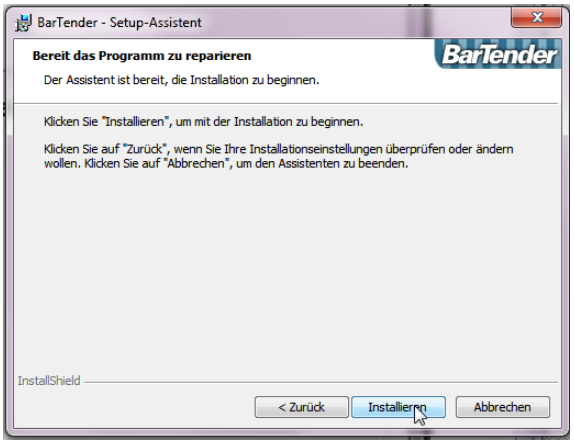
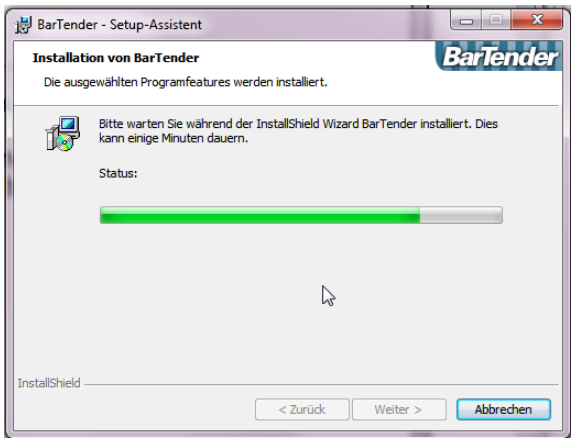
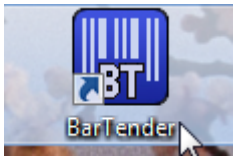
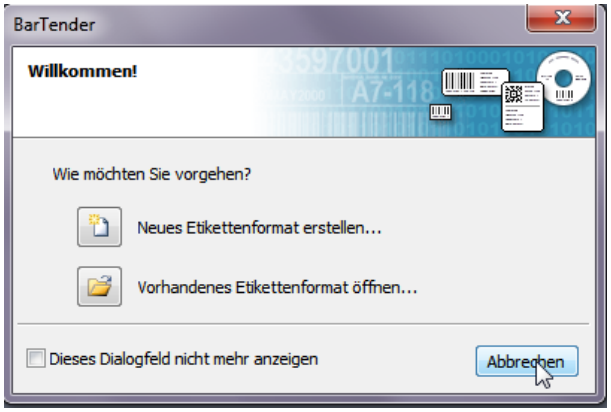




Starten der Software:

Starting the Software:





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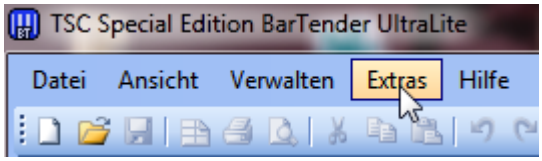
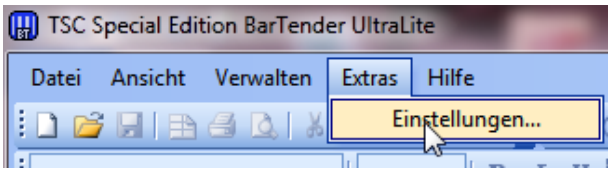
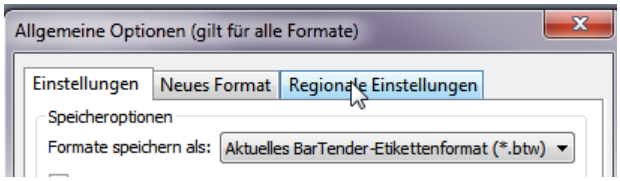
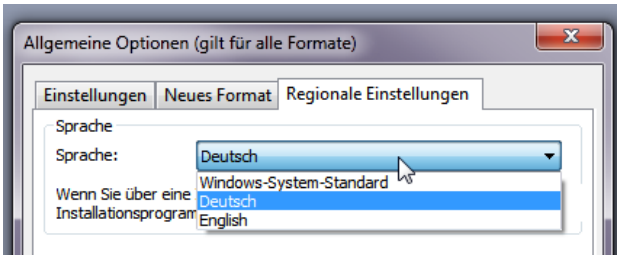
Änderung der Sprache:

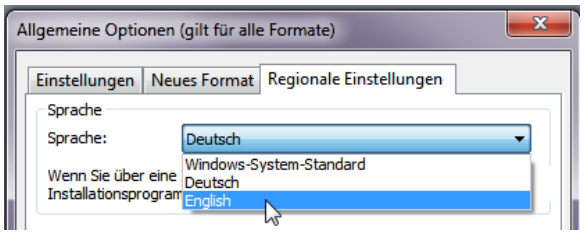
Change the language:

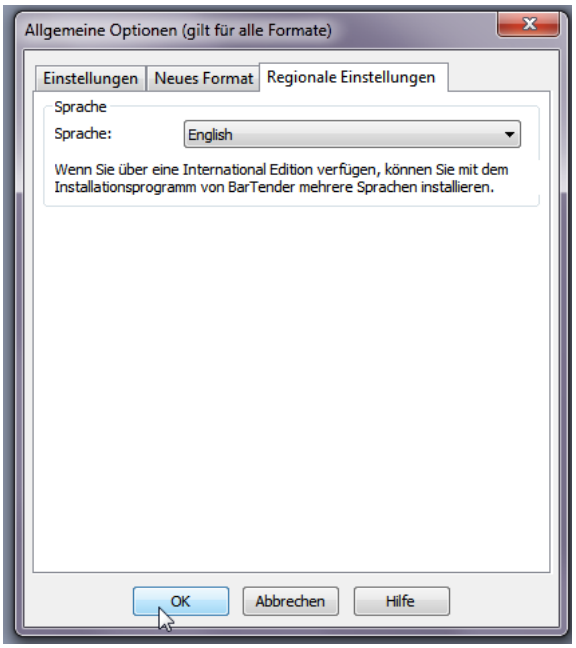












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3.0 Anleitung für die Installation des Windows 7 Druckertreiber
Manual for the installation of the Windows-7 printer driver

WICHTIG

Sollten sie keine Installationsrechte auf ihrem PC haben, müssen sie die Software von ihrem Administrator installieren lassen.

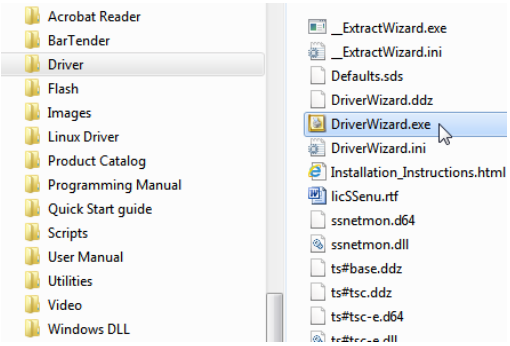
Folgend sie den Bildern zur Installation.

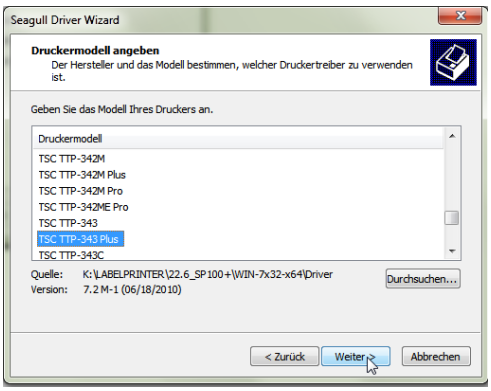
IMPORTANT

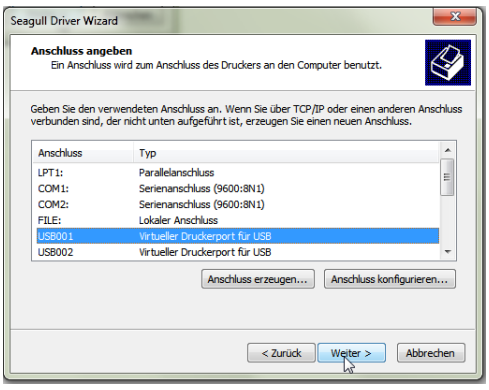
If you do not have installation rights on your PC, you will have to have the installation of this software done by your administrator.

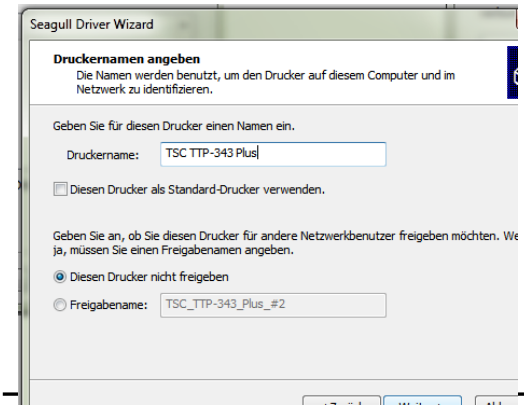
Follow the instruction on the pictures for installation.

(Von der CD / From the CD)









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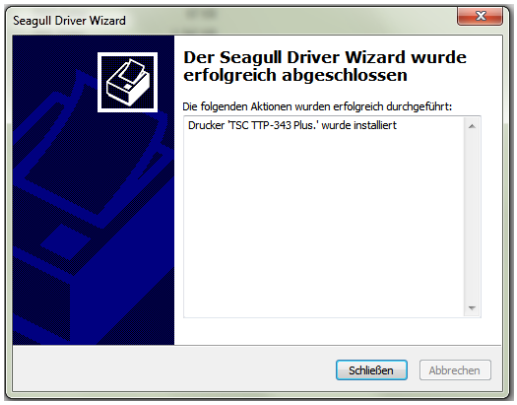
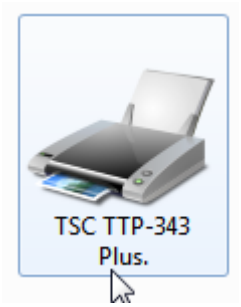
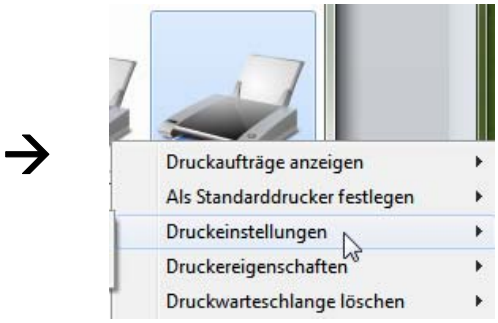


Öffnen des Druckers im Windows-System:

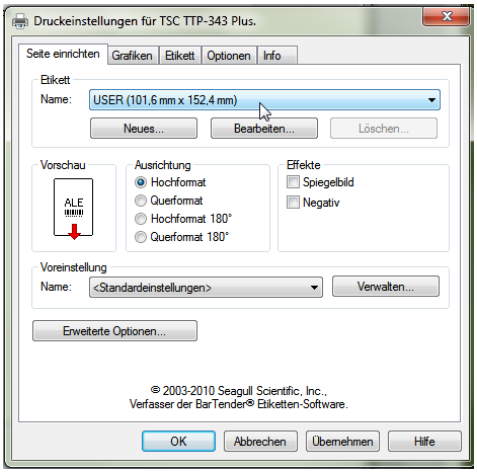
Open the printer driver in you windows system (printer settings):





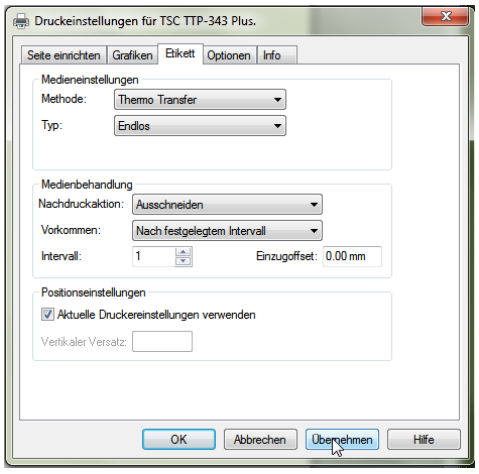
Änderung der Papiergröße:

Change the paper dimensions:



Änderung der gesamten Etiketteneinstellung:

Change all the tape formats:



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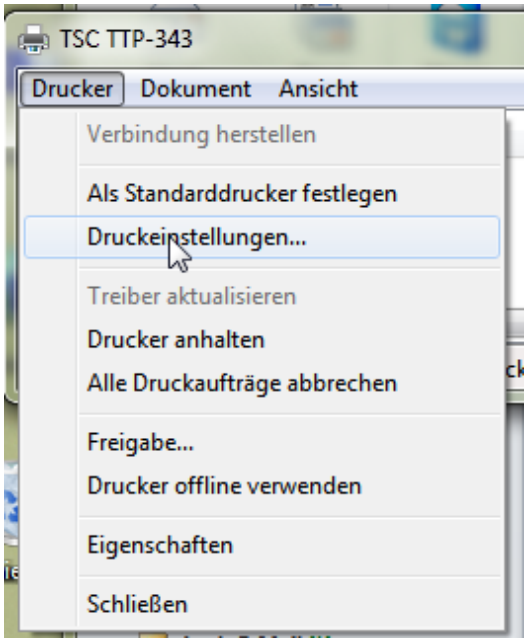
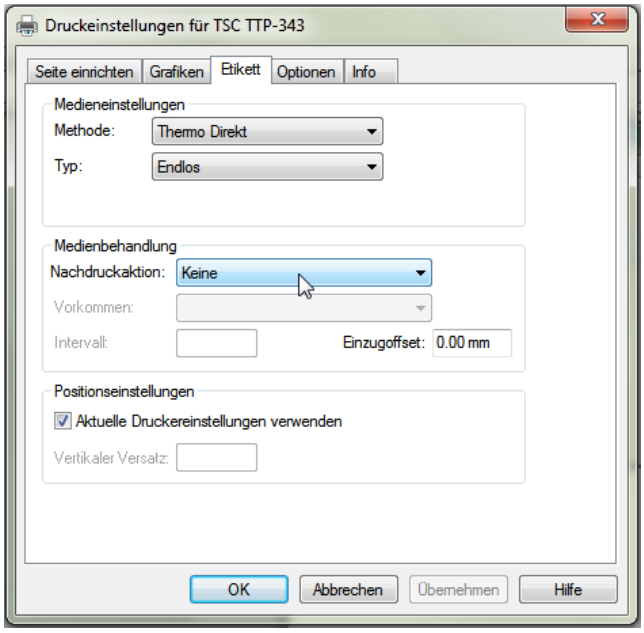
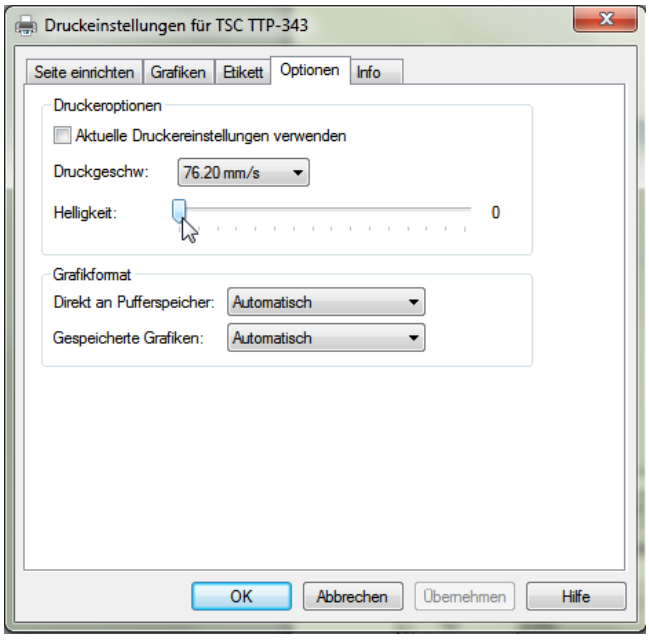
4.0 Anleitung für die Papierrückzugunterdrückung
Instructions on how to avoid the stamp tape from reverse-feeding

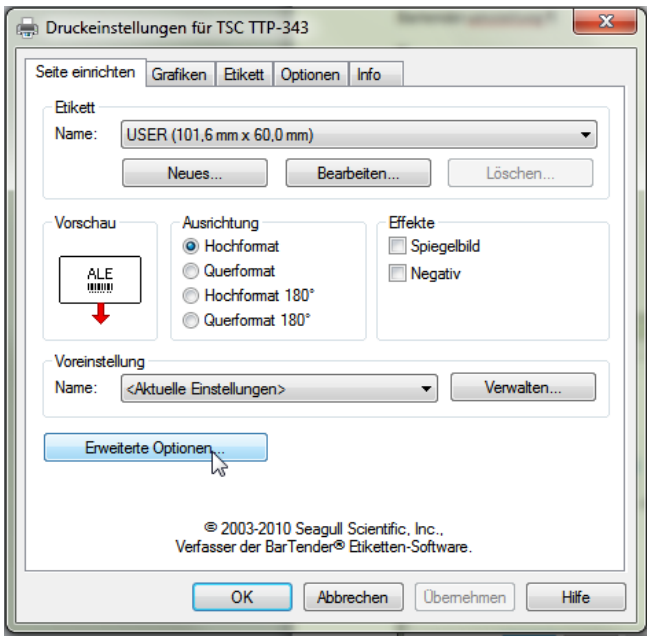
Einstellungen in der BarTender-Software unter „Datei“ -> Druckeinstellungen

Open BarTender Software and go to “File” -> Printer Settings









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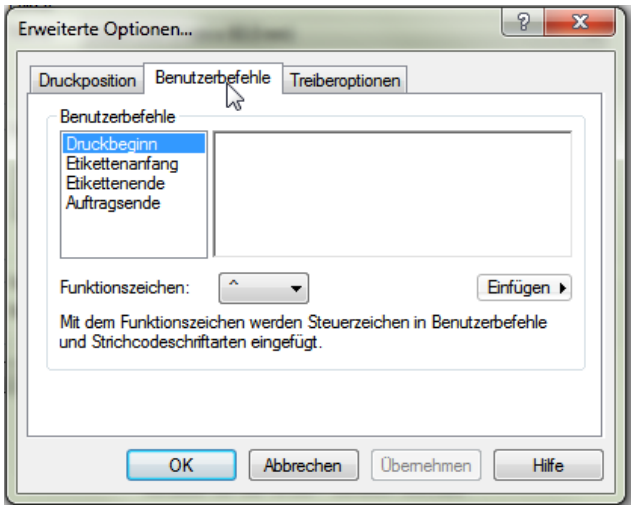

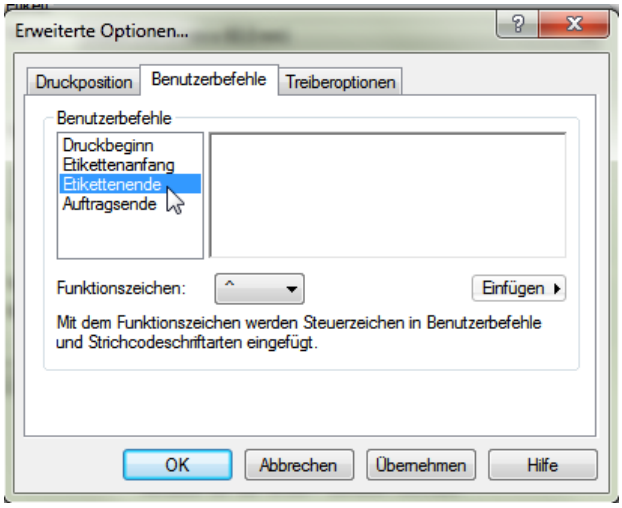

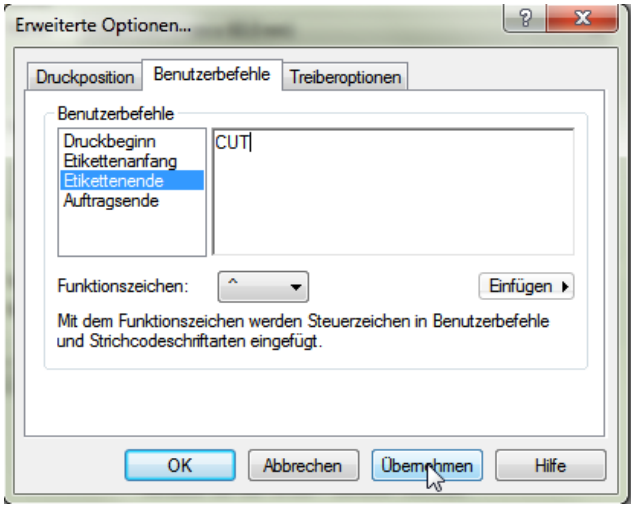

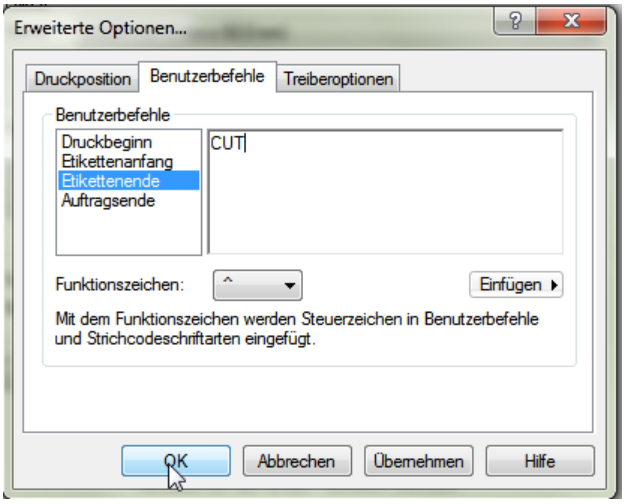

Alle Fenster mit OK beenden.

Confirm all windows with OK.

5.0 Anlagen / Appendices

- **SP100+ Prospekt**
- **SP100+ brochure**
- **SP100+ Benutzerhandbuch**
- **SP100+ user‘s manual**

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Printer SP100+

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The easy way to create short-life stencils for electrolytic marking yourself

Widths: 95 + 71mm
Length: 20m / role

- ***Up to 50 markings per stencil***
- ***Serial numbering***
- ***Logos, icons, barcodes, data matrix codes, graphics***
- ***Create jobs directly with Windows® or optional by print programme***
- ***Use all fonts available on PC***
- ***Universal operation possibilities***
- ***Quick, easy and individual production of stencils***

Only by Schilling Marking Systems!

P.t.o. for the printer

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Printer SP100+

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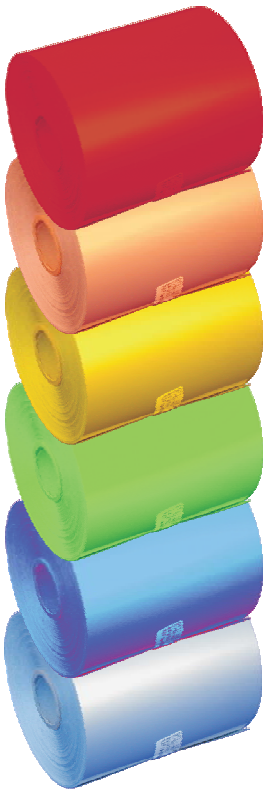
High performance industrial thermo-transfer printer for stamp tapes



Technical Specifications:
- Printing speed: Variable 38, 50 or 75 mm/s
- Resolution: 300 DPI (12 dots/mm)
- Label Software inclusive (15 languages)
- Graphic import: bmp, pcx, jpg
- Vertical and horizontal alyout (Zoom function)
- Fonts: 5 alphanumerical font types
- Barcodes: Code 39, Code 93, Code 128 UCC, Code 128 (Subsets A, B u. C), Codabar, Interleave 2 of 5, EAN-8, EAN-13, UPC-A, UPC-E, EAN and UPC
- Printer driver for Windows® 3.XX/95/98/NT4.0/XP
- Stamp tapes: widths 95mm and 71mm x length 20m
- Variable colour prints with:
  Colour tapes: 5 colours, 110mm x 300m
  Polyester roles: 8 colours, 100mm x 40m
- Memory: IBM Flash, 2MB RAM
- Integrated tape cutter
- 3 switches (tape recognition)
- Interfaces: Parallel/RS232

Prices on request

Stamp Tapes:

22.4100.13	95mm x 20m	
22.4100.14	71mm x 20m	

Polyester Roles:

22.4100.00	100mm x 40m	Clear
22.4100.02	100mm x 40m	Red
22.4100.03	100mm x 40m	Orange
22.4100.04	100mm x 40m	Yellow
22.4100.05	100mm x 40m	Green
22.4100.06	100mm x 40m	Blue
22.4100.08	100mm x 40m	Platin
22.4100.09	100mm x 40m	White
22.4075.08	75mm x 40m	Platin

Farbbänder:

22.4110.00	110mm x 300m	Black
22.4110.02	110mm x 300m	Red
22.4110.05	110mm x 300m	Green
22.4110.06	110mm x 300m	Blue
22.4110.09	110mm x 300m	White

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TTP-245 Series/343 Series

THERMAL TRANSFER / DIRECT THERMAL BAR CODE PRINTER

USER'S MANUAL

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Compliances

CE Class B:

EN55022: 1998+A1: 2000+A2: 2003

EN55024: 1998+A1: 2001+A2: 2003 IEC 61000-4 Series

EN61000-3-2: 2006 & EN61000-3-3: 1995+A1: 2001

FCC Part 15, Class B

UL, CUL

C-Tick:

CFR 47, Part 15/CISPR 22 3rd Edition: 1997, Class B

ANSI C63.4: 2003

Canadian ICES-003

TÜV-GS: EN60950: 2000

Wichtige Sicherheits-Hinweise

1. Bitte lesen Sie Diese Hinweis sorgfältig durch
2. Heben Sie diese Anleitung fűr den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromentz zu trennen. Verwenden Sie Keine Flűssig-oder Aerosolreiniger. Am besten eignet sich ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlußsteckdose soll nahe dem Gerät angebraucht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schűtzen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Beschädigungen hervorrufen.
7. Beáchten Sie beim Anschluß an das stromnetz die Anschlußwerte.

8. Dieses das Gerät kann bis zu einer Außentemperatur von maximal 40℃ betieben werden.

1. Introduction

Thank you for purchasing the TSC TTP-245 series/343 series Thermal Transfer and Direct Thermal Bar Code Printers. Although the printer takes only a small amount of space, it delivers reliable, superior performance.

This printer provides both thermal transfer and direct thermal printing at user selectable speed of: 2.0, 3.0, 4.0 or 5.0 ips, for TTP-245 series; 2.0 or 3.0 ips for TTP-343 series. It accepts roll feed, die-cut, and fan-fold labels for both thermal transfer and direct thermal printing. All common bar codes formats are available. Fonts and bar codes can be printed in 4 directions, 8 different alphanumeric bitmap fonts and a build-in true type font capability. You will enjoy high throughput for printing labels with this printer.

2. Getting Started

2.1 Unpacking and Inspection

This printer has been specially packaged to withstand damage during shipping. Please carefully inspect the packaging and printer upon receiving the bar code printer. Please retain the packaging materials in case you need to reship the printer.

2.2 Equipment Checklist

- One printer unit
- One Windows labeling software/driver CD disk
- One sample ribbon roll
- One sample label roll
- One label spindle (1 inch diameter core)
- Two label spindle fixed tabs
- Two 1.5” core adapter
- One paper core for ribbon rewind spindle
- Two ribbon supply/rewind spindles
- One Centronics interface cable
- One auto switching power supply
- One power cord
- One quick start guide

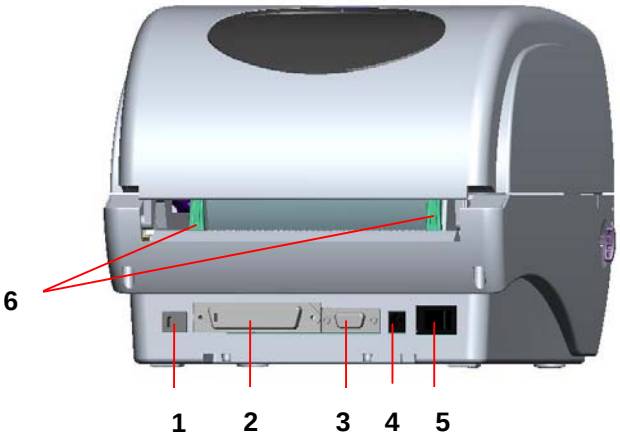
If any parts are missing, please contact the Customer Service Department of your purchased reseller or distributor.

Options

- External label roll mount
- Label spindle (3-inch diameter core)
- Programmable keyboard (KU-007 Plus)
- Stand-alone LCD keyboard (KP-200)
- Automatic cutter module
- Peel off module
- Internal Ethernet print server
- External 802.11b/g wireless print server

2.3 Printer Parts

Fig. 1 Top front view



1. USB Interface
2. Centronics Interface
3. RS-232C DB-9 Interface
4. Power Jack
5. Power Switch
6. Rear Paper Guide

Fig. 2 Rear view

3. Setup

3.1 Setting Up the Printer

1. Place the printer on a flat, secure surface.
2. Make sure the power switch is off.
3. Connect the printer to the computer with the Centronics or USB cable.
4. Plug the power cord into the power supply connector at the rear of the printer, and then plug the power cord into a properly grounded receptacle.

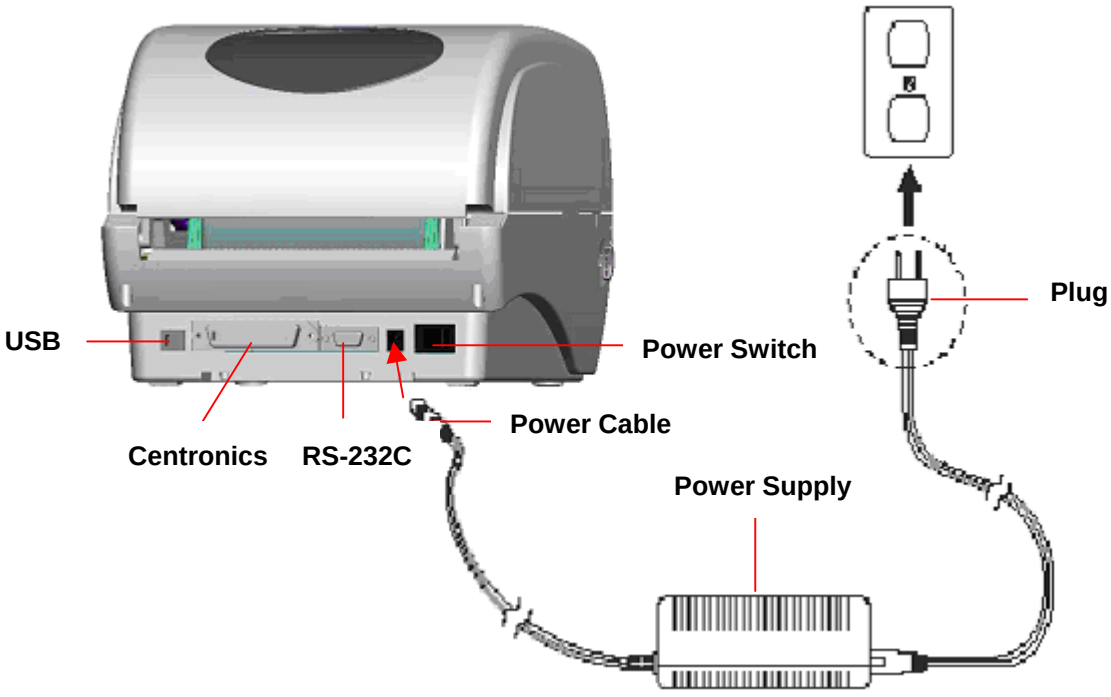


Fig. 3 Attach power supply to printer

3.2 Loading the Ribbon

The printer will detect if the ribbon is installed after turning on power on and it will set printing mode to thermal transfer or direct thermal printing mode automatically. If printer does not detect the ribbon, the ribbon take up motor will be turned off.

Make sure the printer top cover is engaged properly at both sides prior to powering up the printer.

Please follow the steps below to install the ribbon into printer.

1. Push down on the ribbon access window to unlatch and open the cover.
2. Place a paper core onto the ribbon rewind spindle.
3. Mount the ribbon rewind paper core on the front hubs.
4. Install a ribbon on the ribbon supply spindle.
5. Mount the ribbon supply spindle on the rear hubs.
6. Thread the ribbon leading tape downward pass the print head.
7. Attach the ribbon leader to the ribbon rewind paper core.
8. Rotate the ribbon rewind paper core until the ribbon leader is thoroughly, firmly encompassed by the black section of the ribbon.
9. Close the ribbon access window.

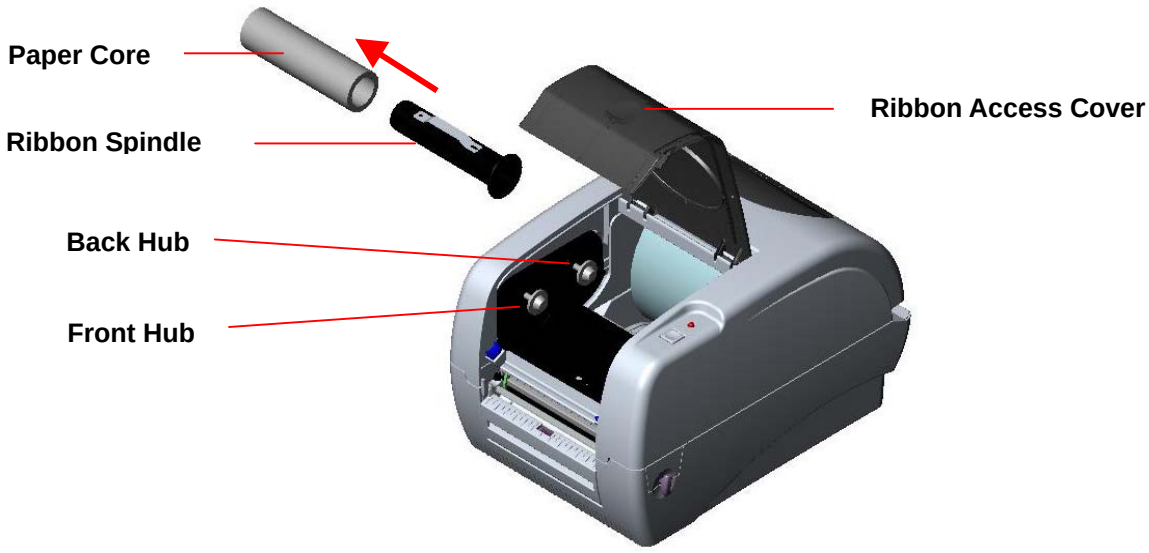


Fig. 4 Ribbon installation (I)

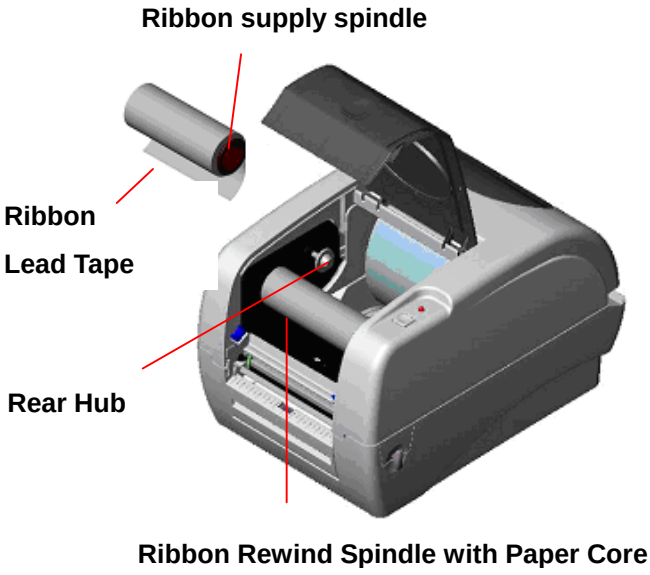


Fig. 5 Ribbon installation (II)

3.3 Loading Label Stock

1. Insert a 1” label spindle into a paper roll (* If your paper core is 1 inch, remove the 1.5” core adapter from the fixed tab. If label width is 4 inch wide, two fixing tabs are not required.).

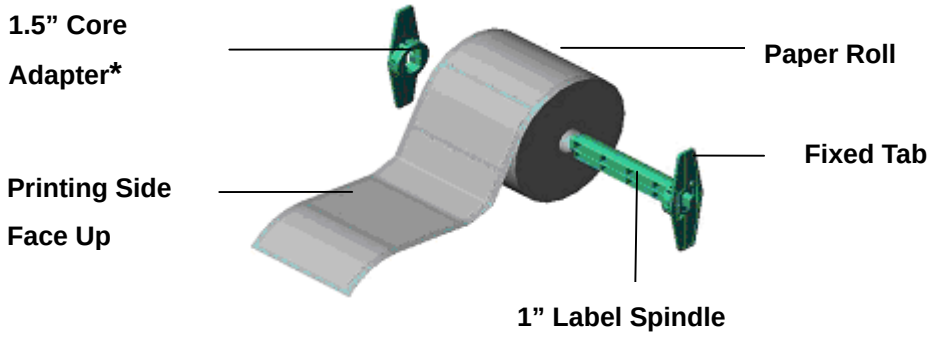


Fig. 6 Label roll installation (I)

2. Open the printer’s top cover by releasing the green top cover open levers

located on each side of the printer and lifting the top cover. A top cover support at the rear of the printer will hold the printer top cover open.

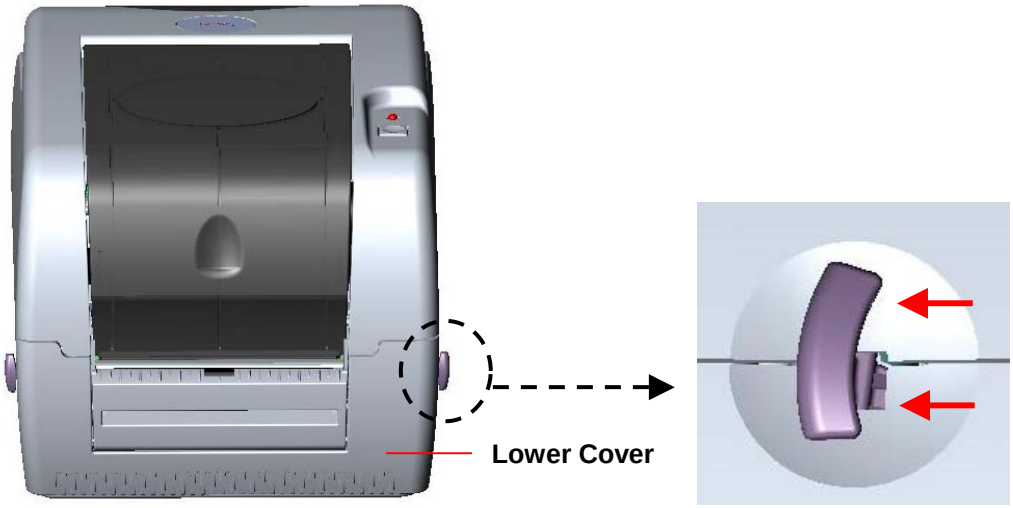


Fig. 7 Pull the lever to open the cover

3. Place a roll of paper onto the center of the paper roll mount.
4. Feed the paper, printing side face up, through the Teflon bar and the paper guide and pass over the platen.
5. Adjust the green center-biased paper guides to slightly touch the edges of the label backing.
6. To close the printer top cover, lift the cover to the ultimate open angle then use both hands to close the cover gently. Close the printer top cover slowly and make sure the cover latches securely.

Note:

1. ***Make sure hands are not placed between printer top cover and lower cover when close the top cover.***
2. ***Do not free fall the top cover.***
3. ***Failure to securely close and lock the cover will result in poor print quality.***

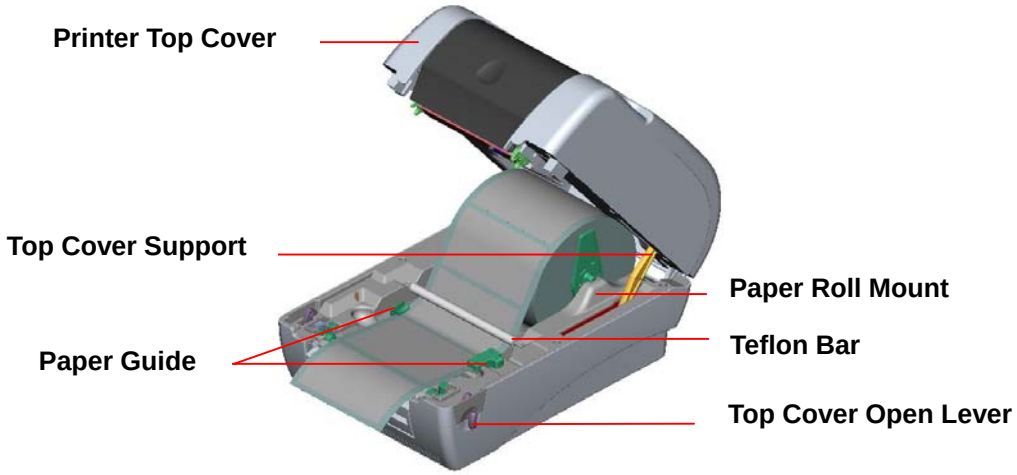


Fig. 8 Label installation (II)

3.4 External Label Roll Mount Installation (Option)

1. Attach an external paper roll mount on the bottom of the printer.

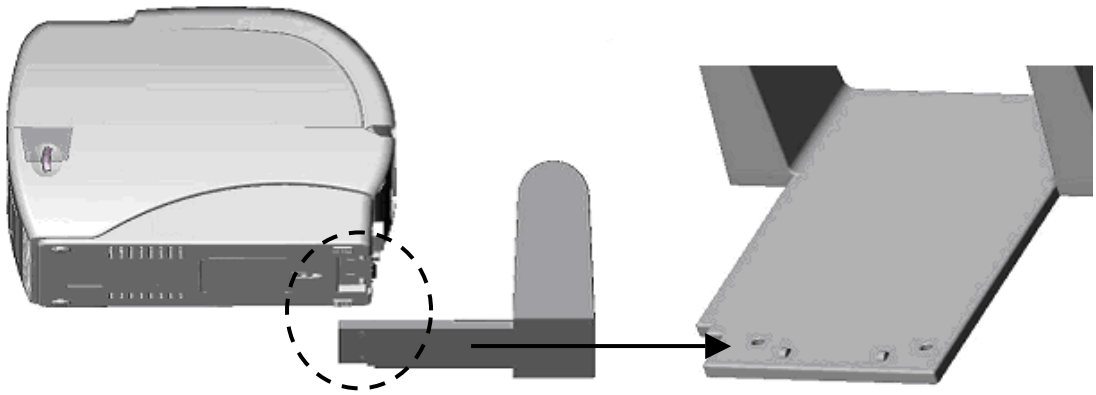


Fig. 9 Attach the external roll mount to the printer

1. Open the printer top cover by releasing the top cover open levers. The top cover support will hold the printer top cover.
2. Install a roll of paper on the external paper roll mount.
3. Feed the paper to the external paper feed opening through the rear paper guide.

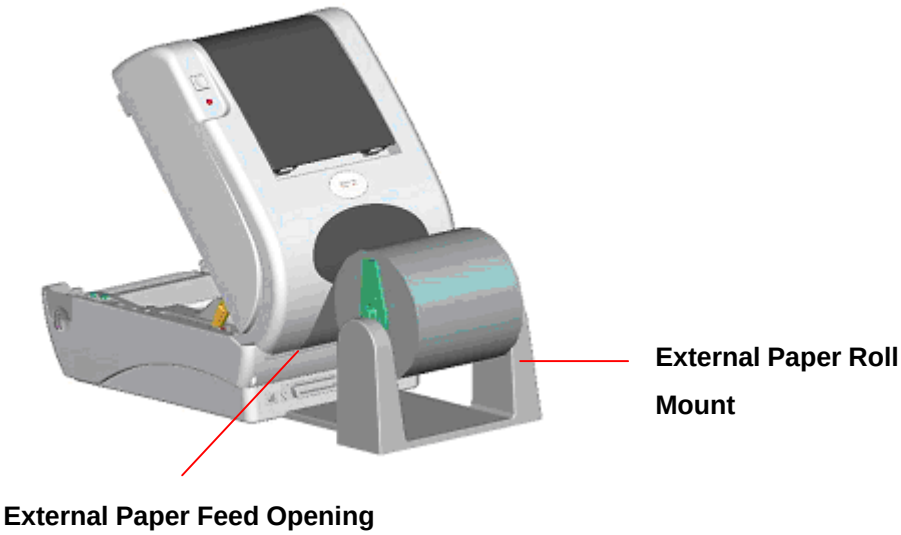


Fig. 10 External roll mount label installation (I)

4. Feed the paper, printing side face up, through the paper guide and pass over the platen.
5. Adjust the paper guides to fit the paper width.
6. Close the printer top cover by lifting the top cover to the maximum opening angle then push down the top cover gently.

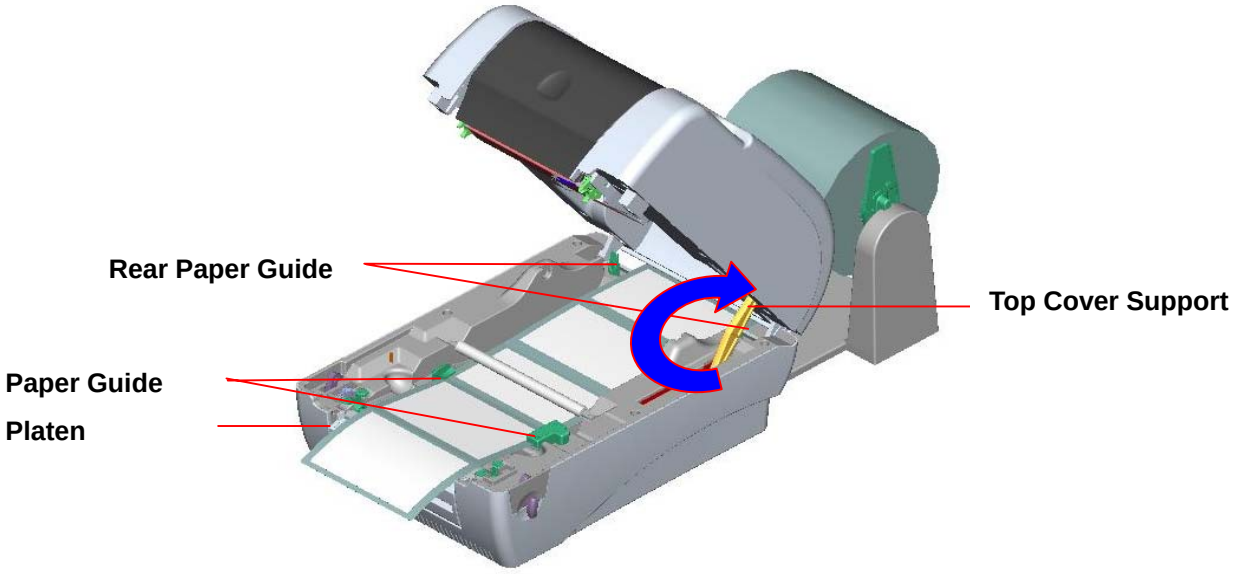


Fig. 11 External roll mount label installation (II)

3.5 Peel-off Module Installation (Option)

1. Open the top cover and remove the front panel from the printer.

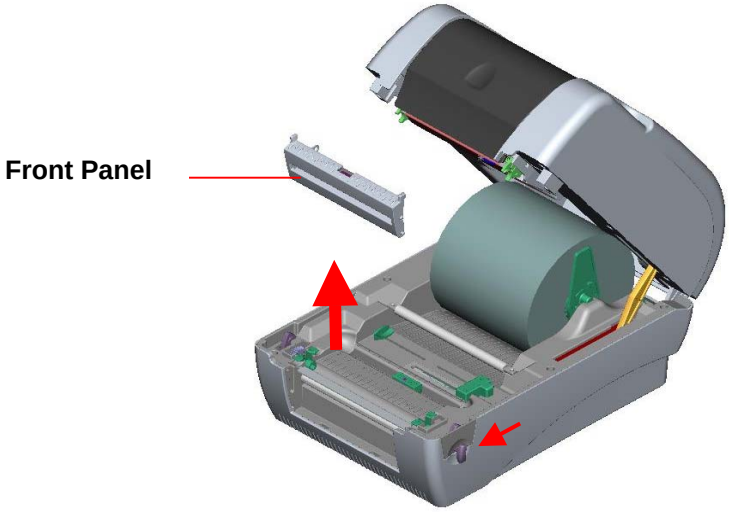


Fig. 12 Remove the front panel

2. Open the top cover and hold it and push down and push backward the top cover support then push backward the top cover.
3. Use a screwdriver to screw off 6 screws on the lower inner cover.

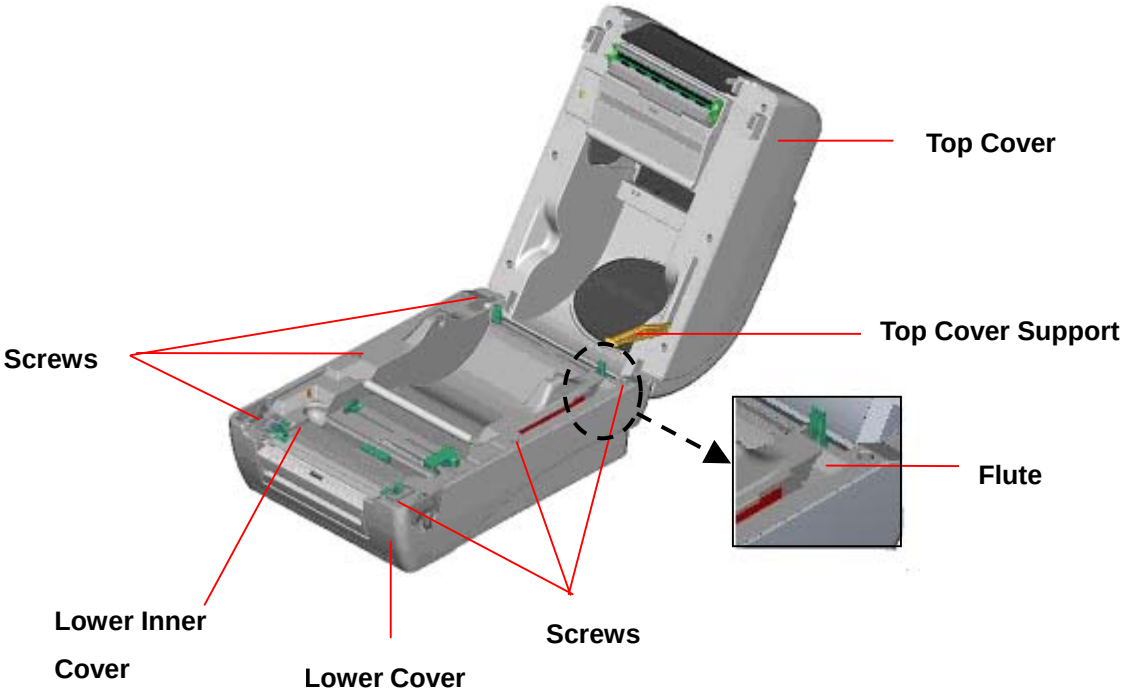


Fig. 13 Remove 6 screws from lower inner cover

4. Upside down the printer. Remove two screws at the hinge and remove one

screw at memory card cover.

5. Hold the lower cover to lift up the top cover open levers to separate the lower inner cover and the lower cover.
6. Arrange the cable through the bezel. Connect the peel-off panel cable to the 5-pin socket on printer PCB.

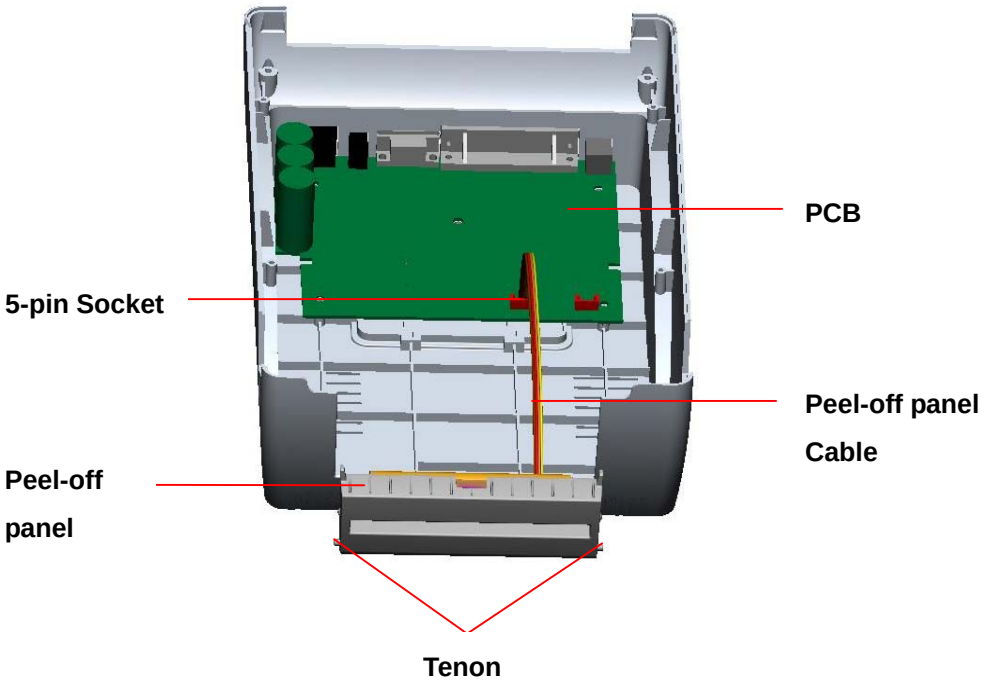


Fig. 14 Connect peel-off sensor cable to main board

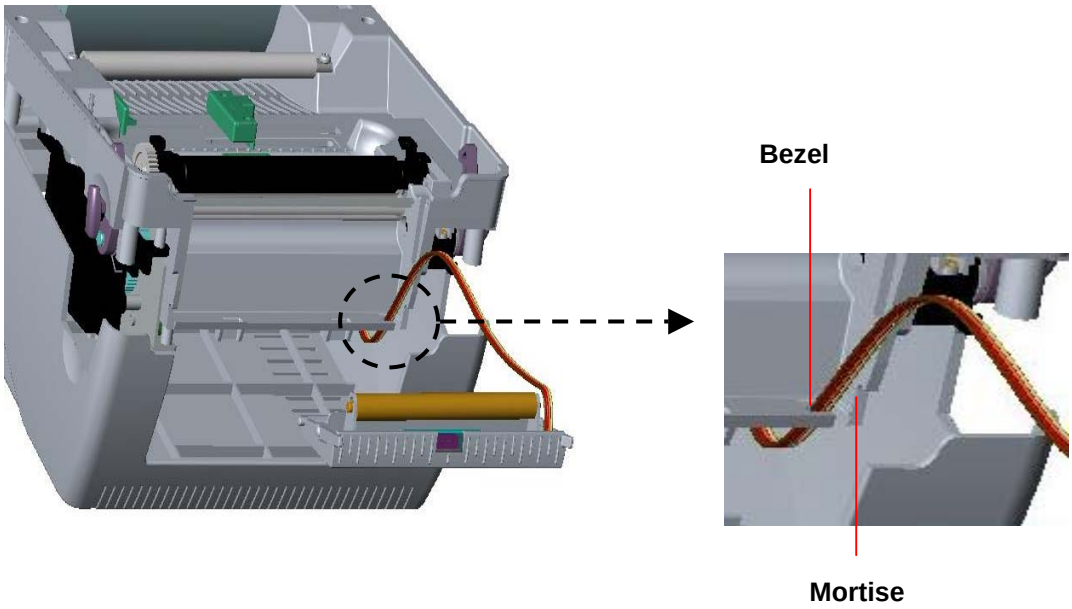


Fig. 15 Peel-off sensor cable installation

7. Insert the peel-off tenons into the lower inner cover mortises until tenons snap into places.

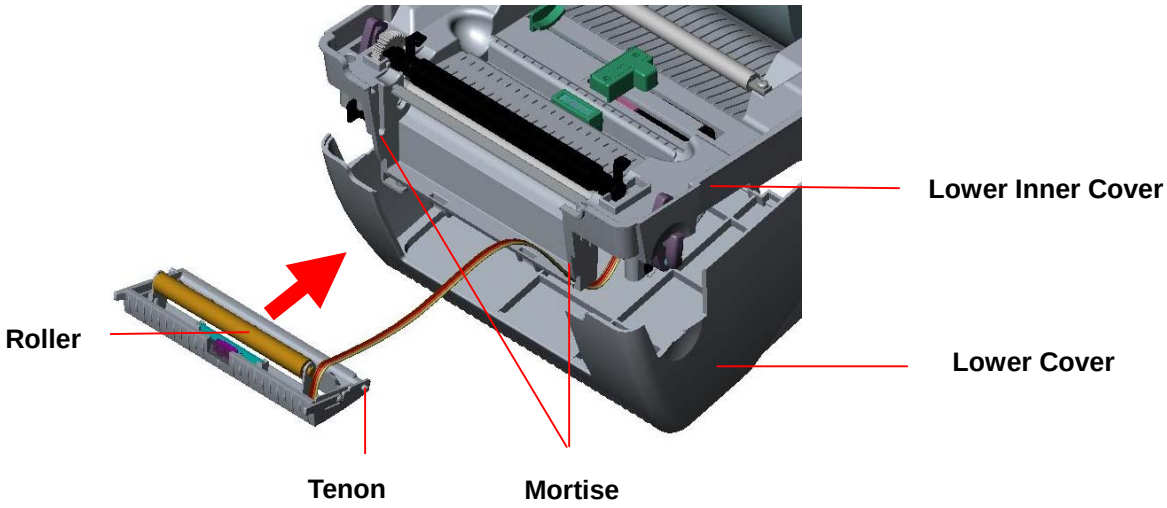


Fig. 16 Peel-off panel installation (I)

8. Arrange the lower inner cover back to the lower cover.

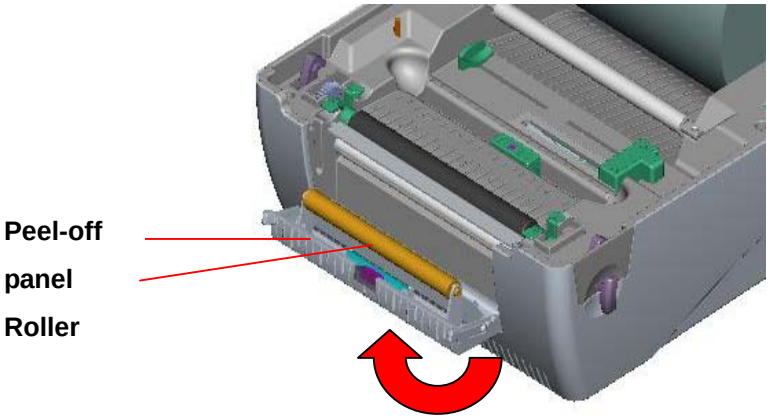


Fig. 17 Peel-off panel installation (II)

9. Lift up the peel-off panel to the lower cover to close it.
10. Use a screwdriver to screw down whole screws on the lower inner cover and the lower cover.
11. Close the top cover by arranging the top cover support back to the flute and push it forward then close the top cover slowly.

3.5.1 Loading the Paper in Peel-off Mode

Note: Both thermal paper and plain paper apply for peel-off function but neither PVC nor vynle work at peel-off function.

1. Insert a 1” label spindle into a paper roll.
2. Open the printer top cover by pulling the top cover open levers. The top cover support will hold the printer top cover.

Fig. 18 Open the top cover

3. Install the paper roll on the paper roll mount.
4. Open the peel-off panel by pulling it out.

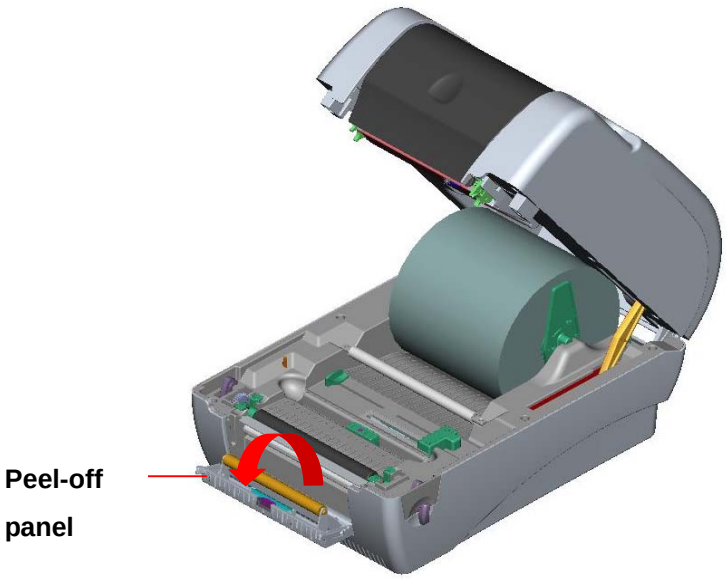


Fig. 19 Open the peel-off panel

5. Feed the paper, printing side facing up, through the paper guide and pass over the platen.
6. Lead the paper through the backing paper opening, beneath the roller, and tear off one piece of the label.
7. Adjust the paper guide by removing left or right to fit the paper width.

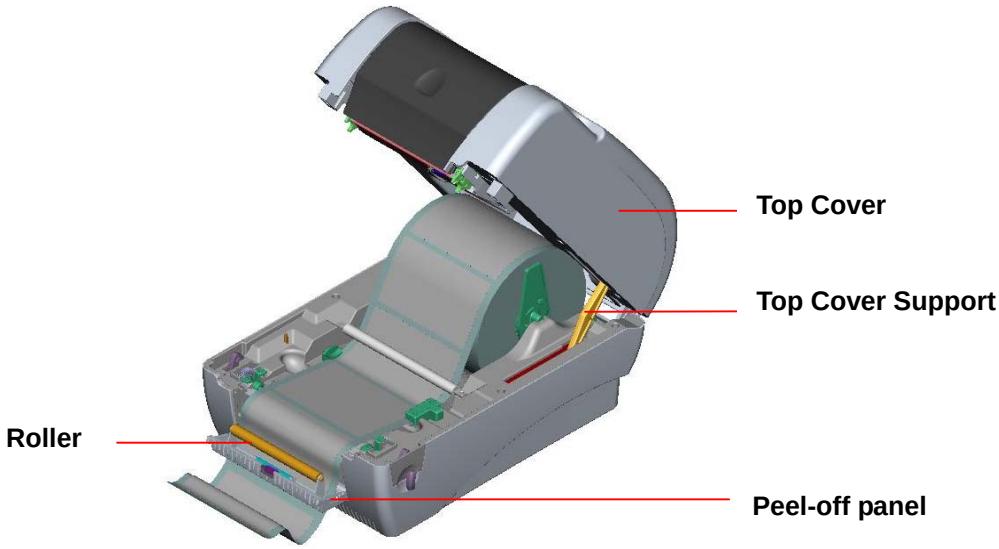


Fig. 20 Lead the paper through the backing paper opening, beneath the roller

8. Push the peel-off panel back to the printer.
9. Close the top cover by lifting up the top cover support and close the top cover slowly.

Note: Pull the label outward tightly after closing the top cover.

Fig. 21 Complete label installation for peel-off mode

3.6 Cutter Module Installation (Option)

1. Pull the top cover open levers to open the top cover.
2. Remove the front panel from the lower cover.

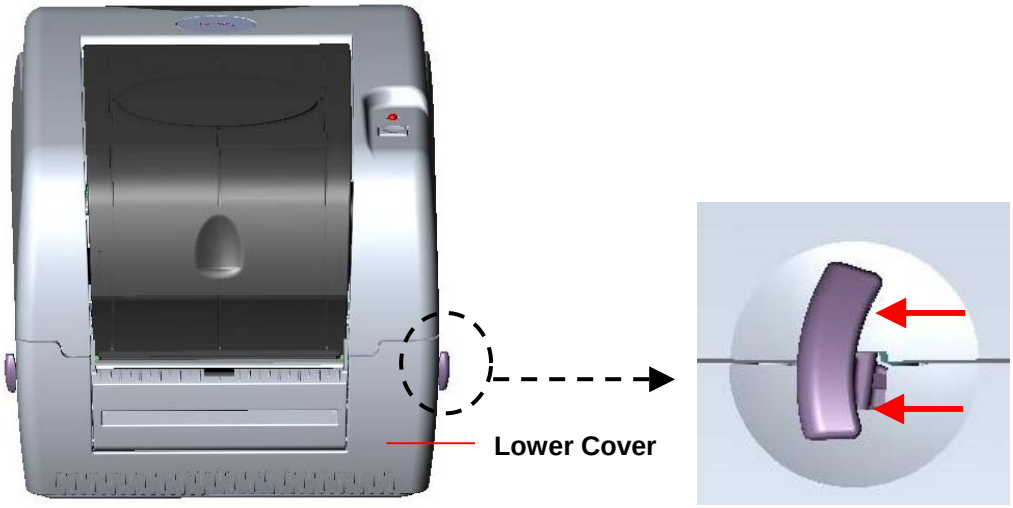


Fig. 22 Pull the lever to open the cover

3. Open the top cover and hold it and push down and push backward the top cover support then push backward the top cover.
4. Use a screwdriver to screw off 6 **screws** on the **lower inner cover**.

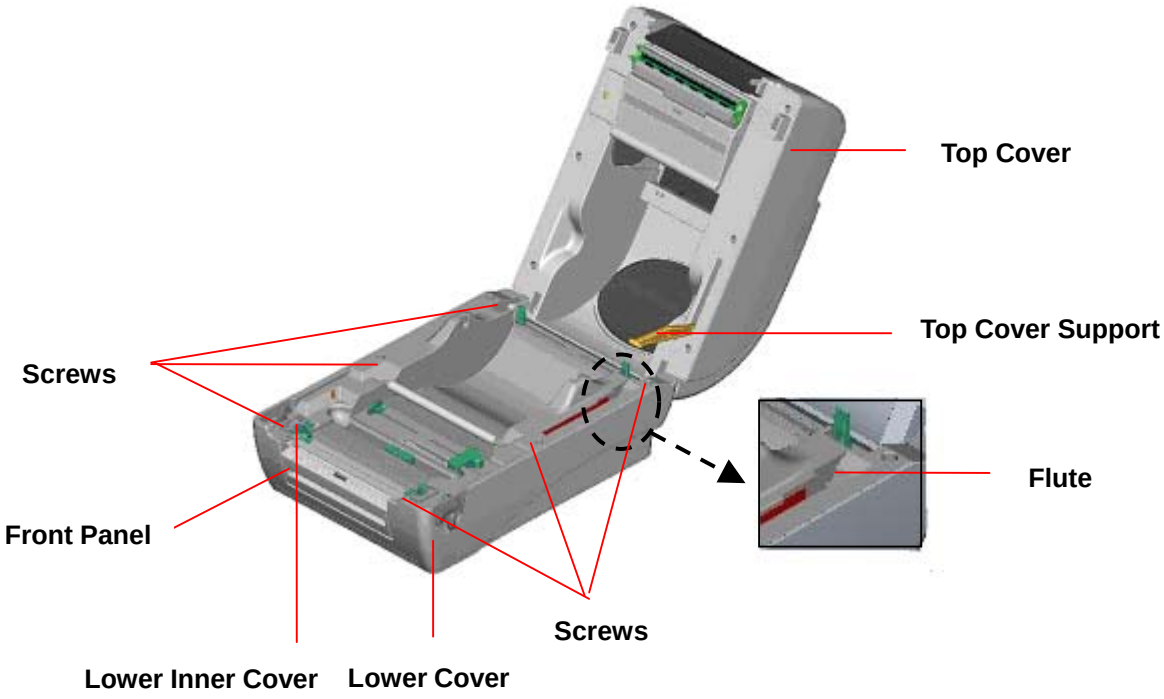


Fig. 23 Remove 6 screws from lower inner cover

5. Place the printer upside down and unscrew the two screws of the **hinge holder** on the lower cover. Unscrew the screw of the **memory card cover**.
6. Use both thumbs to hold the lower cover and index fingers to lift up the top cover open levers to separate the lower inner cover and the lower cover.
7. Arrange the cable through the bezel. Connect the cutter module cable to the 4-pin socket on printer PCB.

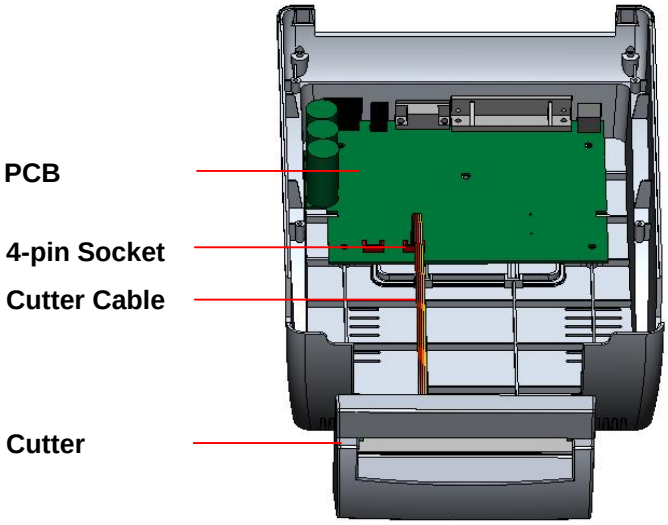


Fig. 24 Cutter module installation

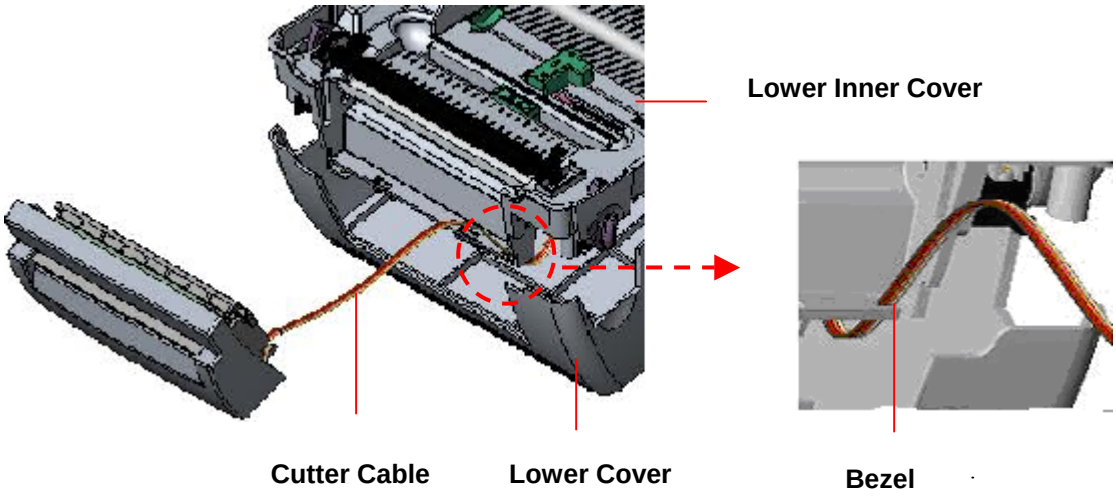


Fig. 25 Cutter module cable arrangement

8. Arrange the lower inner cover back to the lower cover.
9. Install the cutter into the niches of the printer.

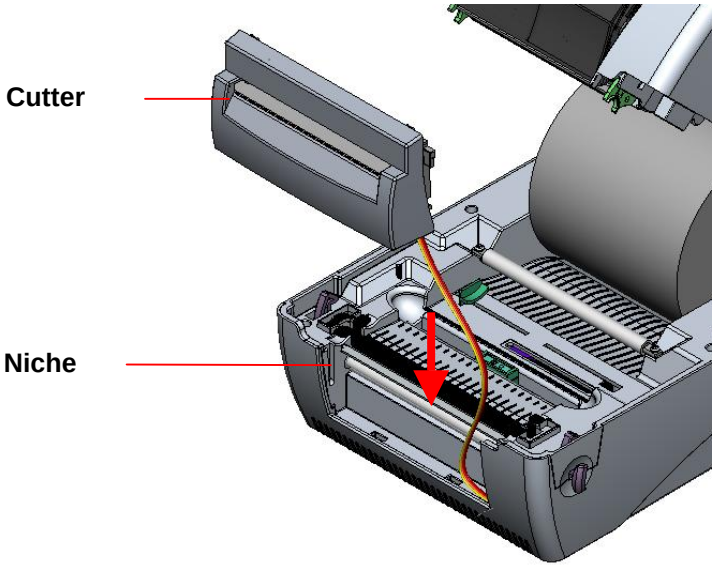


Fig. 26 Cutter module installation

10. Use a screwdriver to screw whole screws on the lower inner cover and the lower cover.
11. Close the top cover by arranging the top cover support back to the flute and push it forward then close the top cover slowly.

3.6.1 Loading Label in Cutter Mode

1. Insert a 1” label spindle into a paper roll.
2. Open the printer top.
3. Install a paper roll on the paper roll mount.
4. Feed the paper, printing side face up, through the paper guide and pass over the platen.
5. Lead the paper through the cutter paper opening.
6. Adjust the paper guide by removing left or right to fit the paper width.

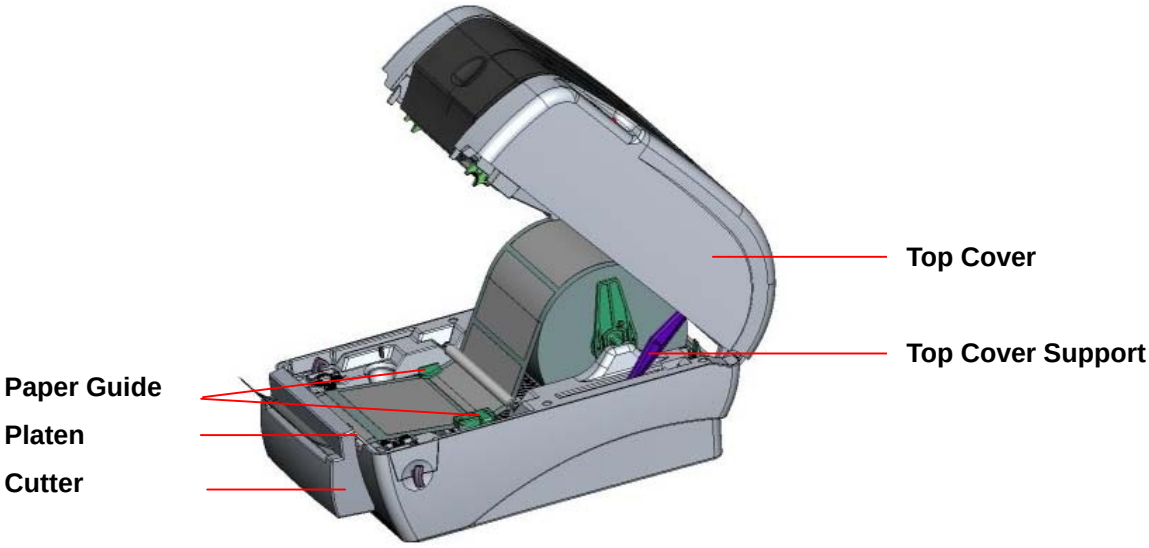


Fig. 27 Label installation in cutter mode

7. Close the top cover by lifting up the top cover support and close the top cover slowly.

Fig. 28 Complete label installation in cutter mode

3.7 Instructions to Top Cover Operation

Please take care when opening or closing the printer's top cover by carefully following these instructions.

To Open:

1. When facing the front of the printer pull the cover release levers on both sides of printer towards you.

2. Lift up the top gradually.
   There are two stop positions for the top cover. Position 1 and 2 are indicated on the label below.
   Note: To hold the cover open at position 1, you must lift the cover higher than the stopping point at position 1 and gently lower the cover to stop position 1. ***DO NOT free fall the top cover!***

3. Fully open the top cover and gently lower it to stop position 2.

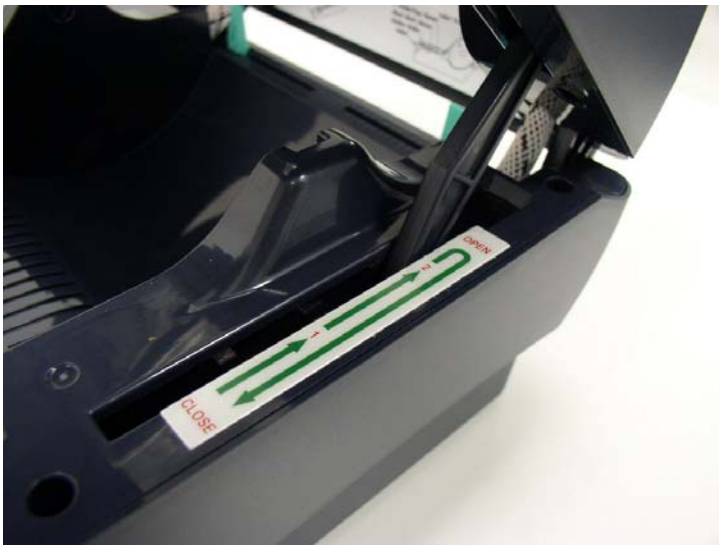


Fig. 1 Top cover support is fixed at position 2

4. To close the cover, lift up the top cover to the ultimate angle then close the top cover gently and it will be kept at a stop position between 1 and 2 for a while. Use both hands to gently push down the top cover to close it and make sure the cover is latched on both sides.
   Note: DO NOT place your hands between top cover and lower cover while close the top cover!

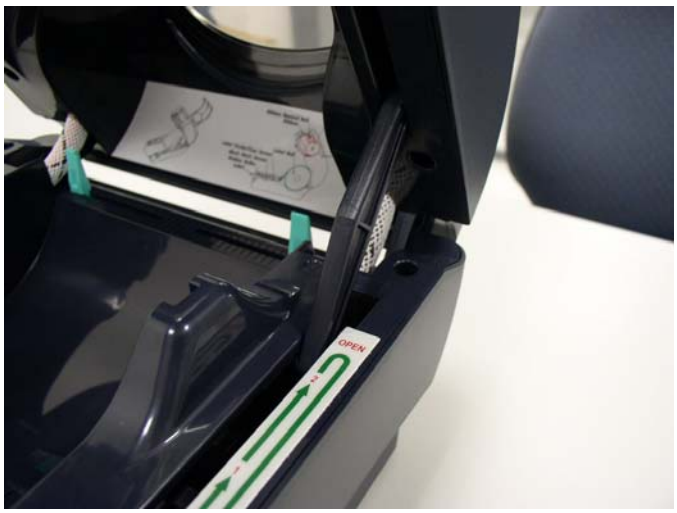


Fig. 2 Top cover is fully open and ready to close

Fig. 3 Use both hands to close the top cover

5. ***Do not force the cover!*** If you are not sure if top cover is fixed at stop position, please do not push top cover to close it or the top cover will be damaged.
   Please open the top cover to the ultimate angle to close the top cover again. Use both hands to push top cover to close it.

4. Power on Utilities

There are six power-on utilities to set up and test printer hardware. These utilities are activated by pressing FEED button and by turning on the printer power simultaneously. The utilities are listed as below:

1. Ribbon sensor calibration and Gap or black mark sensor calibration
2. Gap/black mark sensor calibration；Self-test and dump mode
3. Printer initialization
4. Set black mark sensor as media sensor and calibrate the black mark sensor
5. Set gap sensor as media sensor and calibrate the gap sensor
6. Skip AUTO.BAS

4.1 Ribbon and Gap/Black Mark Sensor Calibration

Gap/black mark sensor sensitivity should be calibrated at the following conditions:

1. A brand new printer
2. Change label stock.
3. Printer initialization.

Please follow the steps below to calibrate the ribbon and gap/black mark sensor.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3 Release the button when LED becomes **red** and blinking. (Any red will do during the 5 blinks).
   - It will calibrate the ribbon sensor and gap/black mark sensor sensitivity.
   - The LED color will be changed as following order：
     Amber → **red (5 blinks)** → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green

Note:
Please select gap or black mark sensor by sending GAP or BLINE command to printer prior to calibrate the sensor.
For more information about GAP and BLINE command, please refer to TSPL2 programming manual.

4.2 Gap/Black Mark Calibration, Self-test and Dump Mode

While calibrate the gap/black mark sensor, printer will measure the label length, print the internal configuration (self-test) on label and then enter the dump mode. To calibrate gap or black mark sensor, depends on the sensor setting in the last print job.

Please follow the steps below to calibrate the sensor.

1.Turn off the power switch.

2. Hold on the button then turn on the power switch.

3. Release the button when LED becomes **amber** and blinking. (Any amber will do during the 5 blinks).
   - The LED color will be changed as following order.
     Amber → red (5 blinks) → **amber (5 blinks)** → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green

4. It calibrates the sensor and measures the label length and prints internal settings then enter the dump mode.

Note:
Please select gap or black mark sensor by GAP or BLINE command prior to calibrate the sensor.
For more information about GAP and BLINE command, please refer to TSPL2 programming manual.

Self-test

Printer will print the printer configuration after gap/black mark sensor calibration. Self-test printout can be used to check if there is any dot damage on the heater element, printer configurations and available memory space.

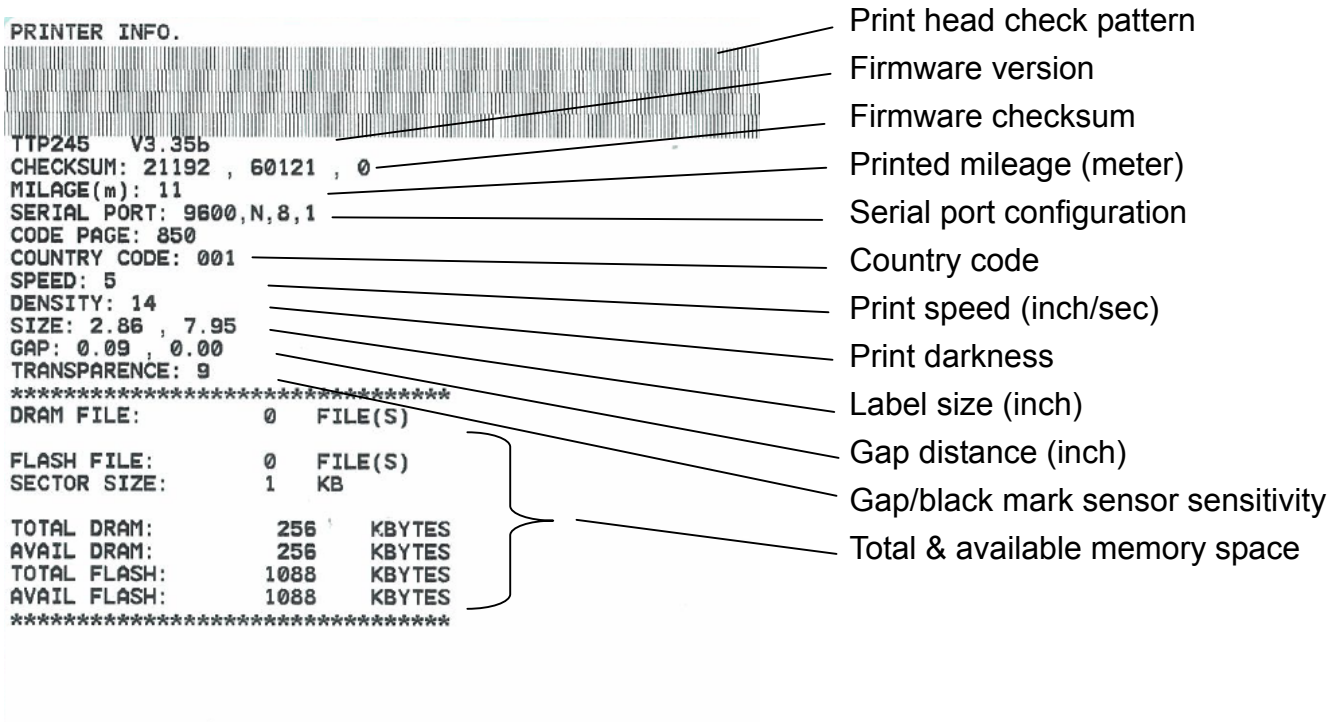


Fig. 29 Self-test printout

Dump mode

Printer will enter dump mode after printing printer configuration. In the dump mode, all characters will be printed in 2 columns as following. The left side characters are received from your system and right side data are the corresponding hexadecimal value of the characters. It allows users or engineers to verify and debug the program.

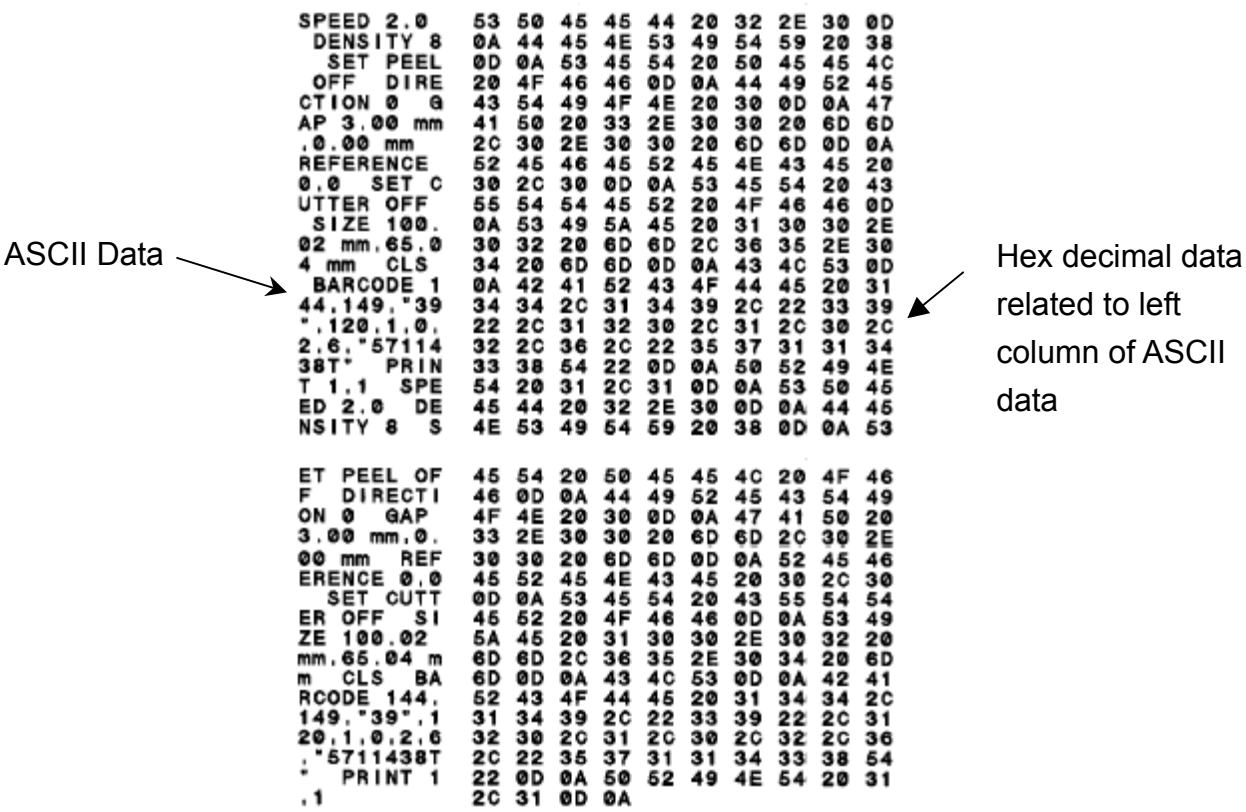


Fig. 30 Dump mode printout

Note:

Turn off / on the power to resume printer for normal printing.

4.3 Printer Initialization

Printer initialization is used to clear DRAM and restore printer settings to defaults. The only one exception is ribbon sensitivity, which will note be restored to default.

Printer initialization is activated by the following procedures.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **green** after 5 amber blinks. (Any green will do during the 5 blinks).
   - The LED color will be changed as following:
     Amber → red (5 blinks) → amber (5 blinks) → **green (5 blinks)** → green/amber (5 blinks) → red/amber (5 blinks) → solid green

Printer configuration will be restore to defaults as below after initialization.

Parameter	Default setting
Speed	TTP-245, 127 mm/sec (5 ips) (203DPI) TTP-343, 76 mm/sec (3 ips) (300DPI)
Density	8
Label Width	4.25” (108.0 mm)
Label Height	2.5” (63.4 mm)
Sensor Type	Gap sensor
Gap Setting	0.12” (3.0 mm)
Print Direction	0
Reference Point	0,0 (upper left corner)
Offset	0
Tear Mode	On
Peel off Mode	Off
Cutter Mode	Off
Serial Port Settings	9600 bps, none parity, 8 data bits, 1 stop bit
Code Page	850
Country Code	001
Clear Flash Memory	No

Note：

Always do gap/black mark sensor calibration after printer initialization.

4.4 Set Black Mark Sensor as Media Sensor and Calibrate the Black Mark Sensor

Please follow the steps as below.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **green/amber** after 5 green blinks. (Any green/amber will do during the 5 blinks).
   - The LED color will be changed as following:
     Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → **green/amber (5 blinks)** → red/amber (5 blinks) → solid green

4.5 Set Gap Sensor as Media Sensor and Calibrate the Gap Sensor

Please follow the steps as below.

1. Turn off the power switch.
2. Hold on the button then turn on the power switch.
3. Release the button when LED turns **red/amber** after 5 green/amber blinks. (Any red/amber will do during the 5 blinks).
   - The LED color will be changed as following:
     Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → **red/amber (5 blinks)** → solid green

4.6 Skip AUTO.BAS

TSPL2 programming language allows user to download an auto execution file to flash memory. Printer will run the AUTO.BAS program immediately when turning on printer power. The AUTO.BAS program can be interrupted without running the program by the power-on utility.

Please follow the procedures below to skip an AUTO.BAS program.

1. Turn off printer power.
2. Press the FEED button and then turn on power.
3. Release the FEED button when LED becomes **solid green**.
    - The LED color will be changed as following:
      Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → **solid green**
4. Printer will be interrupted to run the AUTO.BAS program.

5. Maintenance

5.1 Cleaning

Use one or more of the following supplies that meets your needs:

- Cotton swab
- Lint-free cloth
- Vacuum
- 100% ethanol

The cleaning process is described as following

Printer Part	Method
Printer Head	1. Always turns off the printer before cleaning the print head. 2. Allow the print head to cool for a minimum of one minute. 3. Use a cotton swab and 100% ethanol to clean the print head surface.
Platen Roller	1. Turn the power off. 2. Rotate the platen roller and wipe it thoroughly with 100% ethanol and a cotton swab, or lint-free cloth.
Exterior	Wipe it with water-dampened cloth.
Interior	Brush or air blow.

Note:

- Do not touch printer head by hand. If you touch it careless, please use ethanol to clean it.
- It's industry alcohol. Please do not use regular alcohol, which may damage the printer head.
- You may have to clean the supply sensors more often if you frequently receive supply error messages.

6. Troubleshooting

This section lists the common problems that according to the LED status and other problems you may encounter when operating the printer. Also, it provides solutions.

6.1 LED Status

LED Status / Color	Printer Status	Solution Number
Off	off	1
Solid Green	on	2
Green with blinking	Pause	3
Red with blinking	Stopped	4

1. ***No power.***
   - Turn on the power switch.
   - Check if the green LED is lit on power supply. If it is not lit on, power supply is broken.
   - Check both power connection from the power cord to the power supply and from the power supply to the printer power jack.

2. ***The printer is on and ready to use.***
   - No action necessary.

3. ***The printer is paused.***
   - Press the feed button to resume printing.

4. ***The out of label or ribbon or the printer setting is not correct***

   Out of label or ribbon
   - Load a roll of label and follow the instructions in Loading the Paper then press the feed button to resume printing.
   - Load a roll of ribbon and follow the instructions in Loading the Ribbon then press the feed button to resume printing.

   Printer setting is not correct
   - Initialize the printer by following the instructions in “Power on Utility”.

6.2 Print Quality

Continuous feeding labels

- The printer setting may go wrong. Please do the **Initialization** and **Gap/Black Mark Calibration**.

No print on the label

- Is the label or ribbon loaded correctly? Follow the instructions in **Loading the Paper** or **Loading the Ribbon**.
- Does the ribbon run out? Follow the instructions in **Loading the Ribbon**.

Poor print quality

- Top cover is not closed properly. Close the top cover completely and make sure the right side and left side levers are latched to top cover properly.
- Clean the thermal print head.
- Adjust the print density setting**.**
- Ribbon and paper media are not compatible.

7. LED and Button Operation

7.1 LED

LED Color	Description
Green/ Solid	This illuminates that the power is on and the device is ready to use.
Green/ Flash	This illuminates that the system is downloading data from PC to memory and the printer is paused.
Amber	This illuminates that the system is clearing data from printer.
Red / Solid	This illuminates printer head open, cutter error.
Red / Flash	This illuminates a printing error, such as paper empty, paper jam, ribbon empty, or memory error etc.

7.2 Button Operation

Feed	● Press the button when the LED is **green**. ■ It feeds the label to the beginning of the next label.
Pause	● Press the feed button during printing ■ The printing job is suspended.

Ribbon Sensor and Gap/Black Mark Sensor Calibration	1. Turn off the power switch. 2. Hold on the button then turn on the power switch. 3 Release the button when LED becomes **red** and blinking. (Any red will do during the 5 blinks). ■ It will calibrate the ribbon sensor and gap/black mark sensor sensitivity. ■ The LED color will be changed as following order：Amber → **red (5 blinks)** → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green **Note:** **Please select gap or black mark sensor by GAP or BLINE command prior to calibrate the sensor.** **For more information about GAP and BLINE command, please refer to TSPL2 programming manual.**
Gap/Black Mark Sensor Calibratio, Label Length Measurement, Self Test and enter Dump Mode	1.Turn off the power switch. 2. Hold on the button then turn on the power switch. 3. Release the button when LED becomes **amber** and blinking. (Any amber will do during the 5 blinks). ■ The LED color will be changed as following order. Amber → red (5 blinks) → **amber (5 blinks)** → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → solid green ■ It calibrates the sensor and measures the label length and prints internal settings then enter the dump mode. **Note:** **Please select gap or black mark sensor by GAP or BLINE command prior to calibrate the sensor.** **For more information about GAP and BLINE command, please refer to TSPL2 programming manual.**

Printer Initialization	1. Turn off the power switch. 2. Hold on the button then turn on the power switch. 3. Release the button when LED turns **green** after 5 amber blinks. (Any green will do during the 5 blinks). ■ The LED color will be changed as following: Amber → red (5 blinks) → amber (5 blinks) → **green (5 blinks)** → green/amber (5 blinks) → red/amber (5 blinks) → solid green **Note:** **Always do gap/black mark sensor calibration after printer initialization.**
Set Black Mark Sensor as Media Sensor and Calibrate the Black Mark Sensor	1. Turn off the power switch. 2. Hold on the button then turn on the power switch. 3. Release the button when LED turns **green/amber** after 5 green blinks. (Any green/amber will do during the 5 blinks). ■ The LED color will be changed as following: Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → **green/amber (5 blinks)** → red/amber (5 blinks) → solid green
Set Gap Sensor as Media Sensor and Calibrate the Gap Sensor	1. Turn off the power switch. 2. Hold on the button then turn on the power switch. 3. Release the button when LED turns **red/amber** after 5 green/amber blinks. (Any red/amber will do during the 5 blinks). ■ The LED color will be changed as following: Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → **red/amber (5 blinks)** → solid green

Skip AUTO.BAS	1. Turn off printer power. 2. Press the FEED button and then turn on power. 3. Release the FEED button when LED becomes **solid green**. ■ The LED color will be changed as following: Amber → red (5 blinks) → amber (5 blinks) → green (5 blinks) → green/amber (5 blinks) → red/amber (5 blinks) → **solid green** 4. Printer will be interrupted to run the AUTO.BAS program.

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